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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/303,053

04/30/1999

GEORGE I. DAVIDA

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01/09/2009

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EXAMINER

CARTER, AARON W

ART UNIT

PAPER NUMBER

2624

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/303,053	<b>Applicant(s)</b> DAVIDA ET AL.	
	<b>Examiner</b> AARON W. CARTER	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Examiner Note***

1. The Non-Final office action mailed on 6/12/02 is withdrawn due to the fact that it was improper because the Applicant had not yet paid the CPA filing fee. This action is responsive to the amendment and remarks filed on 6/30/08.

### ***Response to Amendment***

2. In response to applicant's amendment received on 6/30/08, all requested changes to the claims have been entered. Claims 15 and 16 have been added. Currently claims 1-16 are pending.

### ***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

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***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 6 and 13 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, claim 1 discloses “obtaining a user biometric from a biometric system” and “storing the dependency vector in an Identification and Verification Template (IVT) on a reliable storage medium” which are directed to insignificant pre and post processing and do not satisfy the requirement of being tied to another statutory category.

Claims 2-5, 7-12, 15 and 16 are rejected by the virtue of their dependency upon claims 1, 6 and 13.

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by the article “On Enabling Secure Applications Through Off-line Biometric Identification” to Davida et al. (“Davida”) (already of record).

As to claim 1, Davida discloses a method for generating an Identification and Verification Template (IVT) comprising the steps of:

obtaining a user biometric from a biometric system, wherein, the user biometric includes previously encoded authorization information defining a set of privileges granted to a user by an authorization officer for a security infrastructure (*page 154, section 5.1, "User Initialization"*); and

generating a dependency vector from the user biometric, wherein the dependency vector is generated with a lossy transformation of information stored in the user biometric (*page 154, section 5.1, "User Initialization" and page 152, section 3.1*);

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storing the dependency vector in an Identification and Verification Template (IVT) on a reliable storage medium, such that the IVT is bound cryptographically to a user from which the user biometric was obtained, wherein the IVT does not include complete information from the obtained user biometric but does allow for verification of the user when the IVT is accessed for the security infrastructure at a later time (*page 154, section 5.1, "User Initialization" and Section 5, second paragraph*).

As to claim 2, Davida discloses the method of claim 1, wherein the dependency vector includes check digits of the user biometric generated using an error correcting code (*page 154, section 5.1, "User Initialization" and page 152, section 3.1*).

As to claim 3, Davida discloses the method of claim 1, wherein a canonical user biometric is generated from a biometric processing function of multiple readings of the user biometric from the user (*page 152-153, section 3.2*).

As to claim 4, Davida discloses the method of claim 3, wherein the biometric processing function is a majority decoding function (*page 153, section 3.2, "Majority Decoding"*).

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As to claim 5, Davida discloses the method of claim 1, in which the IVT includes public identification information for the user (*page 154, section 5.1, "User Initialization"*).

As to claim 6, Davida discloses a method for uniquely identifying a user via biometric analysis comprising the steps of:

acquiring an input from a user comprising a User Biometric (UB) from a an offline reader (*page 154, section 5.1, "Biometric authorization process"*);

acquiring an input comprising an Identification and Verification Template (IVT) from a token or card, wherein the IVT was generated with a lossy transformation of a previously obtained UB, is cryptographically bound to a user from which the UB was obtained and wherein the IVT does not include complete information from the obtained UB but does allow for verification of the user when the IVT is accessed for a security infrastructure at a later time (*page 154, section 5.1, "Biometric authorization process" and page 152, section 3.1*); and

performing a validation protocol with the user biometric the (UB) and the IVT, whereby a decision value is computed giving either Authorization privileges or Other privileges to the user for access to the security infrastructure, where Other privileges may be anything else but Authorization privileges wherein the validation protocol does not require use of a compare operation between the acquired UB and the acquired IVT (*page 154, section 5.1, "Biometric authorization process"*).

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As to claim 7, Davida discloses the method of claim 6, wherein the validation protocol is a cryptographic validation mechanism for an authentication scheme (*page 155, section 5.2*).

As to claim 8, Davida discloses the method of claim 6, wherein the acquired UB is an iris scan or a portion of an iris scan of the user (*page 155, section 6*).

As to claim 9, Davida discloses the method of claim 6, where the acquired UB is derived from a biometric processing function of comprising multiple scans of the UB (*page 154, section 5.1, "Biometric authorization process" and page 153, section 3.2, "Majority Decoding"*).

As to claim 10, Davida discloses the method of claim 9, where the biometric processing function includes a majority decoding function (*page 154, section 5.1, "Biometric authorization process" and page 153, section 3.2, "Majority Decoding"*).

As to claim 11, Davida discloses the method of claim 10, where the biometric processing function further includes error correction of a biometric component after the majority decoding function is applied (*page 154, section 5.1, "Biometric authorization process" and page 153, section 3.2, "Majority Decoding"*).



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As to claim 12, Davida discloses the method of claim 6, where the IVT incorporates a password encrypted value of the IVT (*page 155, section 6*).

As to claim 13, Davida discloses a method of secure biometric pattern recognition comprising the steps of:

acquiring a first user biometric (UB) pattern (*page 154, section 5.1, "User Initialization"*);

combining the UB pattern with authenticating information with a lossy transformation of information stored in the UB (*page 154, section 5.1, "User Initialization" and page 152, section 3.1*);

encrypting the combination of the UB pattern and the authenticating information to provide an Identification and Verification Template (IVT) wherein the IVT includes less than all information obtained from the first UB (*page 154, section 5.1, "User Initialization" and Section 5, second paragraph*);

acquiring a second UB pattern (*page 154, section 5.1, "Biometric authorization process"*); and

processing the second UB pattern and the IVT to determine if the first UB pattern and the second UB pattern are the same (*page 154, section 5.1, "Biometric authorization process"*).

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As to claim 14, Davida discloses the method of Claim 13 wherein the processing step does not require use of a compare operation between the acquired second UB pattern and the IVT to securely identified a user associated with the second UB (*page 154, section 5.1, "Biometric authorization process"*).

As to claim 15, Davida discloses the method of claim 1, wherein the user biometric is an iris scan or a portion of an iris scan of the user (*page 155, section 6*).

As to claim 16, Davida discloses the method of claim 1, wherein the reliable storage medium includes a magnetic strip or smart card (*page 151, section 2.2*).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON W. CARTER whose telephone number is (571)272-7445. The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron W Carter/

Primary Examiner, Art Unit 2624